



SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY

(DEEMED TO BE UNIVERSITY)

Accredited "A" Grade by NAAC | 12B Status by UGC | Approved by AICTE

www.sathyabama.ac.in

MDS

PEDIATRIC AND PREVENTIVE DENTISTRY

B) Pediatric Dentistry:

Child Psychology:

Development & Classification of behavior, personality, intelligence in children, theories of child psychology, stages of psychological child development, fear, anxiety, apprehension & its management.

- Behavior Management: Non- pharmacological & Pharmacological methods
- Child Abuse & Dental Neglect:

Conscious Sedation:

- Deep Sedation & General Anesthesia in Pediatric Dentistry: (Including Other Drugs, Synergic & Antagonistic Actions of Various Drugs Used in Children)

Preventive Pedodontics:

Concepts, chair side preventive measures for dental diseases, high-risk caries including rampant & extensive caries – Recognition, Features & Preventive Management, Pit and Fissures Sealants, Oral Hygiene measures, Correlation of brushing with dental caries and periodontal diseases. Diet & Nutrition as related to dental caries. Diet Counseling

Dental Plaque:

Definition, Initiation, Pathogenesis, Biochemistry, and Morphology & Metabolism.

Gingival & Periodontal diseases in Children:

- Normal Gingiva & Periodontium in children.
- Gingival & Periodontal diseases – Etiology, Pathogenesis, Prevention & Management

Pediatric Operative Dentistry:

- Principle of Operative Dentistry along with modifications of materials/past, current & latest including tooth colored materials.
- • Modifications required for cavity preparation in primary and young permanent teeth.
- • Various Isolation Techniques
- • Restorations of decayed primary, young permanent and permanent teeth in children using various restorative material like Glass Ionomer, Composites, Silver, Amalgam & latest material (gallium)
- Stainless steel, Polycarbonate & Resin Crowns / Veneers & fibre post systems. • Primary Dentition: - Diagnosis of pulpal diseases and their management – Pulp capping, Pulpotomy, Pulpectomy (Materials & Methods), Controversies & recent concepts.
- Young permanent teeth and permanent teeth, Pulp capping, Pulpotomy, Apexogenesis, Apexification, Concepts, Techniques and Materials used for different procedures.
- Recent advances in Pediatric diagnosis and Endodontics.

Pediatric Endodontics:

Prosthetic consideration in Pediatric Dentistry.

Traumatic Injuries in Children:

- • Classifications & Importance.
- • Sequelae & reaction of teeth to trauma.
- • Management of Traumatized teeth with latest concepts.
- • Management of jaw fractures in children.

Interceptive Orthodontics:

- • Concepts of occlusion and esthetics: Structure and function of all anatomic components of occlusion, mechanics of articulations, recording of masticatory function, diagnosis of Occlusal dysfunction, relationship of TMJ anatomy and pathology and related neuromuscular physiology.
- A comprehensive review of the local and systemic factors in the causation of malocclusion.
- • Recognition and management of normal and abnormal developmental occlusions in primary, mixed and permanent dentitions in children (Occlusal Guidance).
- • Biology of tooth movement: A comprehensive review of the principles of teeth movement. Review of contemporary literature. Histopathology of bone and Periodontal ligament, Molecular and ultra cellular consideration in tooth movement.
- Myofunctional appliances: Basic principles, contemporary appliances: Design & Fabrication
- Removable appliances: Basic principles, contemporary appliances: Design & Fabrication
- Case selection & diagnosis in interceptive Orthodontics (Cephalometrics, Image processing, Tracing, Radiation hygiene, Video imaging & advance Cephalometric techniques).
- Space Management: Etiology, Diagnosis of space problems, analysis, Biomechanics, Planned extraction in interceptive orthodontics.

Oral Habits in Children

- Definition, Etiology & Classification
- Clinical features of digit sucking, tongue thrusting, mouth breathing & various other secondary habits.
- Management of oral habits in children

Dental care of Children with special needs:

Definition, Etiology, Classification, Behavioral, Clinical features & Management of children with:

- Physically handicapped conditions
- Mentally compromising conditions
- Medically compromising conditions
- Genetic disorders • Historical background
- Definition, Aetiology & Pathogenesis
- Caries pattern in primary, young permanent and permanent teeth in children.
- Rampant caries, early childhood caries and extensive caries. Definition, aetiology, Pathogenesis, Clinical features, Complications & Management.
- Role of diet and nutrition in Dental Caries
- Dietary modifications & Diet counseling.
- Subjective & objective methods of Caries detection with emphasis on Caries Activity tests, Caries prediction, Caries susceptibility & their clinical Applications

Oral manifestations of Systemic Conditions in Children & their Management

Management of Minor Oral Surgical Procedures in Children

Dental Radiology as related to Pediatric Dentistry

Cariology:

Historical background

- Definition, Aetiology & Pathogenesis
- Caries pattern in primary, young permanent and permanent teeth in children.

- Rampant caries, early childhood caries and extensive caries. Definition, aetiology, Pathogenesis, Clinical features, Complications & Management.
- Role of diet and nutrition in Dental Caries
- Dietary modifications & Diet counseling.
- Subjective & objective methods of Caries detection with emphasis on Caries Activity tests, Caries prediction, Caries susceptibility & their clinical Applications.

Pediatric Oral Medicine & Clinical Pathology: Recognition & Management of developmental dental anomalies, teething disorders, stomatological conditions, mucosal lesions, viral infections etc.

Congenital Abnormalities in Children: Definition

Dental Emergencies in Children and their Management.

Dental Materials used in Pediatric Dentistry.

C) Preventive Dentistry:

- Definition
- Principles & Scope
- Types of prevention
- Different preventive measures used in Pediatric Dentistry including fissure sealants and caries vaccine.

Dental Health Education & School Dental Health Programmes:

Dental health concepts, Effects of civilization and environment, Dental Health delivery system, Public Health measures related to children along with principles of Pediatric Preventive Dentistry

Fluorides:

- • Historical background
- • Systemic & Topical fluorides
- • Mechanism of action
- • Toxicity & Management.
- • Defluoridation techniques.

Medico legal aspects in Pediatric Dentistry with emphasis on informed consent.

Counseling in Pediatric Dentistry

Case History Recording: Outline of principles of examination, diagnosis & treatment planning. **Epidemiology:** Concepts, Methods of recording & evaluation of various oral diseases. Various national & global trends of epidemiology of oral diseases.